

Our Reference: 200308817-1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant:	John R. Moffatt et al.
Serial Number:	10/672,486
Filing Date:	September 25, 2003
Confirmation No.:	8250
Examiner/Group Art Unit:	Betelhem Shewareged/1794
Title:	PROTECTION OF PRINTED IMAGES FROM GASFADE

REPLY BRIEF

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Commissioner for Patents
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Sir:

Please enter the following Reply Brief in response to the Examiner's Answer dated May 28, 2008.

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I. STATUS OF CLAIMS

Claims 3, 4, 6, 21-26 and 28-33 are the claims on appeal. See, Appendix.

Claims 1, 2, 5, 7 and 27 were cancelled.

Claims 8 through 20 were withdrawn.

Claims 3, 21, 22, 24 through 26 and 33 were rejected under 35 U.S.C. § 102(b) as being anticipated by Schleicher et al. (U.S. Patent No. 5,837,036).

Claims 3, 4, 6, 7, 21 through 26, and 28 through 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsuchida et al. (U.S. Patent Publication No. 2002/0071941) in view of Schleicher et al. (U.S. Patent No. 5,837,036).

Claims 4, 6, 21 through 26, and 28 through 32 were newly rejected in the Examiner's Answer of May 28, 2008 under 35 U.S.C. § 103(a) over Schleicher et al. (U.S. Patent No. 5,837,036).

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Previous Grounds

Whether claims 3, 21, 22, 24 through 26, and 33 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by *Schleicher et al.*

Whether claims 3, 4, 6, 7, 21 through 26, and 28 through 33 are unpatentable under 35 U.S.C. § 103(a) over *Tsuchida et al.* in view of *Schleicher et al.*

Additional New Grounds

Whether claims 4, 6, 21 through 26, and 28 through 32 are unpatentable under 35 U.S.C. § 103(a) over *Schleicher et al.*

III. ARGUMENTS

A. Rejection of Claims 3, 21, 22, 24-26 and 393 under 35 U.S.C. §102(b) as being anticipated by Schleicher et al. (U.S. Patent No. 5,837,036) and Rejection of Claims 4, 6, 21-26 and 28-32 under 35 U.S.C. § 103(a) as being unpatentable over Schleicher et al. (U.S. Patent No. 5,837,036)

Claims 3, 21, 22, 24-26 and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by Schleicher et al. ("Process and Filter for Removing Organic Substances and Ozone from Gases" referred to herein as "Schleicher") in the Final Office Action dated October 18, 2007. Furthermore, based on additional new grounds given by the Examiner in the Examiner's Answer of May 28, 2008, claims 4, 6, 21-26 and 28-32 are now rejected under 35 U.S.C. § 103(a) as being unpatentable over Schleicher et al.

In the Response to the Argument in the Examiner's Answer of May 28, 2008, the Examiner stated that one of the Appellant's most basic arguments in the Appeal Brief was not persuasive. This basic argument was that Schleicher's "support material" is not the same, nor does it cover an area which could be interpreted to be the same as the Appellants' "print medium". The Examiner went on to say that the argument is not persuasive because the claimed type of medium includes a broad range, such as ceramic masses and organic substances, which meet the claimed medium. In the Examiner's Response to Argument, the Examiner further states that: "Even though Schleicher teaches filter which contains the ozone-binding polymer such as the claimed poly(phenylene sulfide) (col. 3, line 50+), the invention of Schleicher is not limited to filter only. Schleicher also teaches the use of the poly(phenylene sulfide) as a coating applied onto a support material."

Appellants strongly disagree with the Examiner that Schleicher's "support material" could be interpreted to be the same as the Appellants' "print medium". Schleicher discloses an ozone filter, anti-ozone polymers, and support materials with the anti-ozone polymers applied to them. Schleicher clearly does **not** teach or even suggest a "print medium".

The Court of Appeals for the Federal Circuit has unequivocally set out that: "The effect preamble language should be given can be resolved only on review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim." *Corning Glass Works.*, 868 F.2d 1251, 1256; 9 U.S.P.Q.2d (BNA) 1962. Thus, based on the understanding provided by the specification, the preamble language "give[s] 'life and meaning' and provide[s] further positive limitations to the invention claimed." *Corning Glass Works.*, 868 F.2d 1251, 1257; 9 U.S.P.Q.2d (BNA) 1962.

In the *Corning* case quoted above, Sumitomo had argued that claim 1 in Corning's patent was anticipated by the disclosure in a prior patent of a substantially transparent luminescent glass in the form of a fiber comprised of a doped silica core having a sheath of silica. Corning countered that the preamble words "An optical waveguide" constituted a limitation of the invention which must be interpreted as that term is defined in the patent specification associated with claim 1.

As shown in the above passages from the Federal Circuit opinion in *Corning*, Corning's argument about the importance of the preamble words "An optical waveguide" in light of the specification convinced the Court and led it to reject Sumitomo's argument that the preamble words should be ignored:

Thus, we conclude that the claim preamble in this instance **does not merely state a purpose or intended use for the claimed structure.** See *Kropa v. Robie*, 38 C.C.P.A. 858, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Rather, those words do give "life and meaning" and provide further **positive limitations** to the invention claimed. See *Loctite*, 781 F.2d at 866, 228 USPQ at 92; *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 896, 221 USPQ 669, 675 (Fed. Cir.), cert. denied, 469 U.S. 857, 83 L. Ed. 2d 120, 105 S. Ct. 187 (1984). Thus, contrary to Sumitomo's argument, the core and cladding limitations specifically set out in paragraphs (a) and (b) are not the only limitations of the claim. See, e.g., *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677-78, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988) (affirming district court's use of claim preamble as a limitation). **The claim requires, in addition, the particular structural relationship defined in the specification for the core and cladding to function as an optical waveguide.** (emphasis added)

Corning Glass Works v. Sumitomo Electric U.S.A., Inc., et al., 868 F.2d 1251, 1257 (Fed. Cir. 1989).

Appellants submit that the rule set out by the Federal Circuit in *Corning* is precisely on point with the facts of the current Appeal. As in *Corning*, the preamble words “A print medium” (and indeed, recited in the body of the claims themselves) used in all of Appellants’ pending claims constitute a limitation of the invention which should be interpreted as that term is defined in the instant specification.

The instant application on page 9, lines 5-22 states the following about the print medium:

As previously mentioned, the print medium 2 to which the inhibitor 4 is applied may be a conventional print medium, such as a plain paper 6 or a specialized photographic medium. The plain paper 6 may include, but is not limited to, a copier paper having from approximately 25% to approximately 100% cotton fibers. Plain papers and techniques for fabricating plain papers are known in the art and, as such, are not described in detail herein. If the print medium 2 is a specialized photographic medium, the print medium 2 may include a substrate layer 8 and an ink-receiving layer 10, as shown in FIG. 2. Materials for the substrate layer 8 are known in the art and may include a paperbase or a photobase. For instance, the substrate layer 8 may include a hard or flexible material made from a polymer, a paper, a glass, a ceramic, a woven cloth, or a non-woven cloth material. The ink-receiving layer 10 may be coated on the substrate layer 8 as known in the art and may include inorganic or organic materials, such as inorganic particles or organic polymers. The specialized photographic medium may be a porous print medium or a swellable print medium, both of which are known in the art. For sake of example only, the porous print medium may include diatomaceous earth, zeolitic materials, alumina, silica, or combinations thereof in the ink-receiving layer 10.”

As shown above, the “print medium” as recited in the pending claims is further defined and described in the Appellants’ specification. Such description provides a good basis for distinguishing the claimed invention as recited in the pending claims from what is disclosed in Schleicher et al.

As such, in light of the holding of *Corning* and its application to the present facts, it is clear that Schleicher does not teach or suggest a ‘print medium’ as it is defined and described in the positive limitations in the claims and as defined in the specification of the instant application.

The 'print medium' as set out in the instant claims is neither taught nor suggested by Schleicher. A print medium, as demonstrated above, is a combination of materials that is made to achieve a precise effect when inkjet photographic inks are printed on it. Such an effect would not be possible with the 'support materials' of Schleicher, which are just a general list of inorganic substances (glass, silica gel, alumina gel, sand, ceramic masses, metal) and organic substances (plastics), not a product which is the combination of materials brought together to achieve good print images with inkjet ink. One skilled in the art reading Schleicher would not be taught or would not find suggested the print medium and the poly(phenylene sulfide) incorporated into the print medium of the instant claims.

As such, Appellants submit that one of ordinary skill in the art, upon reading the claim recitation "print medium" (even without benefit of reading the corresponding description in Appellants' specification), would not in any way be led to believe that Schleicher's filter or support material was a "print medium."

It is submitted that the Examiner has not met her burden of setting forth a *prima facie* case that Schleicher's filter or support material is structurally configured to function successfully as a print medium. If the Examiner persists in equating the filter or support material to a print medium, Appellants respectfully request that the Examiner provide 1) evidence that a skilled artisan would equate Schleicher's filter or support material to a print medium; as well as 2) evidence that such filter or support medium functions successfully as a print medium.

For all the reasons stated above, Appellants assert that Schleicher's support material is not the same, nor does it cover an area which could be interpreted to be the same, as the Appellants' print medium. Schleicher in no way teaches incorporating poly(phenylene sulfide) into a print medium as recited in the claims of the present application. Thus, it is submitted that Appellants' print medium as defined in independent claims 3, 21 and 33, and in those claims depending ultimately therefrom, is not anticipated, taught, or rendered obvious by Schleicher, either alone or in combination, and patentably defines over the art of record.

B. Rejection of Claims 3, 4, 6, 21-26 and 28-33 under 35 U.S.C. §103(a) as being unpatentable over Tsuchida et al. (U.S. Patent Publication Serial Number 2002/0071941A1) in view of Schleicher et al. (U.S. Patent Number 5,837,036)

Claims 3, 4, 6, 21-26 and 28-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsuchida et al. ("Sheet for Ink Jet-Recording" referred to herein as "Tsuchida") in view of Schleicher et al. ("Process and Filter for Removing Organic Substances and Ozone from Gases" referred to herein as "Schleicher") in the Final Office Action dated October 18, 2007.

In the Response to Argument in the Examiner's Answer of May 28, 2008, the Examiner alleges that Appellant's argument that there is no suggestion or motivation for one of ordinary skill in the art to combine Schleicher and Tsuchida is not persuasive because Tsuchida teaches every claimed limitation except the poly(phenylene sulfide) and Schleicher teaches the missing limitation that is the poly(phenylene sulfide). Appellants submit that this statement begs the question.

As stated in the arguments relating to the § 102(b) and § 103(a) rejections based on Schleicher discussed above, Schleicher neither teaches nor suggests any connection with print medium. Rather, it merely describes a general list of inorganic and organic materials which it characterizes as support materials with no connection to printing or print media. Thus, any basis for combining Schleicher with Tsuchida et al. is completely missing, and the Examiner has yet to provide any evidence linking these two references, but for a hindsight, conclusory picking and choosing **with no reasoned statements or evidence**.

In 2006, the Court of Appeals for the Federal Circuit set out a rule for combining elements from different references in order to show obviousness. In the *Sanofi-Synthelabo* case, the Court stated the following:

We have noted that it is **insufficient to merely identify each element in the prior art to establish unpatentability of the combined subject matter as a whole**. *Abbott Labs v. Andrx Pharms., Inc.* 452 F.3d 1331, 1336 (Fed. Cir. 2006). Instead, 'a party alleging invalidity due to obviousness must **articulate the reasons** one of ordinary skill in the art would have been motivated to select

the references and to combine them to render the claimed invention obvious.’ *Sanofi-Synthelabo et al. v. Apotex, Inc. et al.*, 470 F.3d 1368, 81 U.S.P.Q.2d 1097 (Fed. Cir. 2006) (emphasis added)

The Examiner alleges that Schleicher provides a motivation “to reduce the ozone content by reacting the ozone with a poly(phenylene sulfide).” However, Schleicher teaches or suggests nothing about reducing ozone content in print media or whether such ozone reduction would improve ozone fastness of printed images printed on the print media. Furthermore, Schleicher provides not even the slightest teaching or suggestion of whether poly(phenylene sulfide) could be successfully applied to a print medium at all, poly(phenylene sulfide) being quite a different substance in application than the solutions of sulfur-containing diallylamine polymers applied to print media in Tsuchida.

In the Examiner’s Answer of May 28, 2008 and in the Office Actions leading up to the current Appeal, the Examiner has done just what the Court described disapprovingly in the above quote. She has identified each element in the prior art to establish unpatentability of the combined subject matter as a whole. However, she has **failed** to articulate valid reasons why one of ordinary skill in the art would have been motivated to select the references and combine them in the manner she suggests to render the claimed invention obvious. Merely finding a print medium with an anti-ozone coating of one kind in one reference; and a support material, totally unrelated to print media, to which poly(phenylene sulfide) (an anti-ozone compound of a completely different kind) might be applied in the other reference, does **not** establish obviousness according to the CAFC’s rule in *Sanofi-Synthelabo*.

Without articulating valid reasons why one of ordinary skill in the art would be motivated to combine Schleicher (which teaches or suggests nothing about print media and their application with anti-ozone compounds) with Tsuchida (which relates to print media), there is no basis to establish unpatentability of the instant claims based on the combination of Tsuchida and Schleicher. The Examiner’s alleged “motivation” of reducing ozone content is not the articulated reasoning that the Court requires.

For all the reasons stated above, it is submitted that the combination of the references does not teach or suggest Appellants’ print medium having increased

resistance to gas fade as recited in the pending claims. As such, it is submitted that the Examiner has not met her burden of setting forth a *prima facie* case of obviousness.

Thus, Appellants submit that neither Schleicher nor Tsuchida, either alone or in combination, teach or suggest the print medium having increased resistance to gas fade. It is further submitted that Appellants' invention as defined in claims 3, 4, 6, 21-26, and 28-33 is not anticipated, taught or rendered obvious by the cited art and patentably defines over the art of record.

CONCLUSION

The Appellants respectfully submit that claims 3, 4, 6, 21-26 and 28-33 as currently pending fully satisfy the requirements of 35 U.S.C. §§ 102, 103 and 112. In view of the foregoing, favorable consideration and passage to issue of the present application is respectfully requested. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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